70

What is claimed is:

1.   A sensor data process method for processing data obtained from a sensor, comprising the steps of:

5   storing data groups in a database in which a word is attached to each of said data groups, said data groups being obtained by classifying inputs from said sensor directly or after processing;

        classifying an input from said sensor using said

10   database to output a classification result;

        * temporarily storing input data from said sensor as data of a new group after classifying said input data when it is determined that said input data does not belong to any of said data groups classified in

15   said database; and

        attaching a word to said data of said new group temporarily stored to store said data of said new group in said database.

20   2.   A   sensor   data   processing   apparatus   for processing data obtained from a sensor, comprising:

        characteristic extracting means for extracting a certain characteristic from sensor data input from said sensor;

25   characteristic comparing/classifying means for

classifying said sensor data based on said certain characteristic extracted from said sensor data; and

word attaching means for attaching a word for each group of data groups in which sensor data are

5 classified when there is a group that a word is not attached to in said data groups.

3. The sensor data processing apparatus according to claim 2, further comprising:

10 status judging means for judging a status using a certain word attached to a group in said data groups, when input sensor data is classified by said characteristic comparing/classifying means as data in a group to which said certain word is attached.

15

4. The sensor data processing apparatus according to claim 2, wherein

said word attaching means requests a user to designate an appropriate word for a data group of

20 sensor data to which no word is attached, and attaches said appropriate word input by a user.

5. A device operation method for processing data with a word used in a device for operating an

25 apparatus by processing language information,

comprising the steps of:

storing data indicating a behavior pattern of said apparatus in a database in which a word is attached to said behavior pattern;

5   inputting a word for instructing an operation of said apparatus;

comparing the input word and the word attached to the behavior pattern in said database;

controlling said apparatus based on the behavior
10   pattern to which the word is attached if the input word matches the word attached to the behavior pattern; and

controlling said apparatus according to a behavior pattern selected from a plurality of
15   behavior patterns available for said apparatus according to a predetermined rule or at random if the input word does not match the word attached to the behavior pattern, and when an appropriate behavior pattern is executed, attaching said input word to the
20   appropriate behavior pattern and storing the appropriate behavior pattern in said database with said input word.

6.   A device for operating an apparatus by
25   processing language information, comprising:

a database storing behavior patterns of said apparatus to which words are attached;

input processing means for inputting a word indicating an operation of said apparatus;

5 comparing means for comparing the word input by said input processing means and a word attached to a behavior pattern stored in said database;

behavior selecting means for selecting a behavior pattern from a plurality of behavior

10 patterns available for said apparatus according to a predetermined rule or at random if the input word does not match the word attached to the selected behavior pattern;

behavior executing means for controlling said

15 apparatus according to one of the behavior patterns to which a matching is detected by said comparing means and the behavior pattern is selected by said behavior selecting means;

judging means for judging whether or not the

20 behavior pattern executed by said behavior executing means is appropriate; and

word attaching means for attaching said word input by said input processing means to the behavior pattern judged to be appropriate by said judging

25 means, and storing the behavior pattern in said

database.

7.   The device according to claim 6, wherein
said input processing means converts an input
5   word into a word of internal data by way of language
processing.

8.   The device according to claim 6, wherein
said behavior selecting means selects a behavior
10   pattern at random when a word is input;
said behavior executing means executes a
predetermined number of or all possible behavior
patterns; and
said word attaching means attaches said word to
15   a behavior pattern which obtains the highest
evaluation of a certain criterion based on a result
of an execution of a behavior pattern.

9.   The device according to claim 6, further
20   comprising:
criteria database storing criteria for use in
judging by said judging means;
inquiring means for inquiring which criterion is
to be used when a behavior is selected by said
25   behavior selecting means; and

judgement inputting means for inputting information on a suitability of a behavior pattern executed by said behavior executing means; wherein

5   said judging means judges a behavior based on one of the criterion obtained by said inquiring means and the information input from said judgement inputting means.

10   10. The device according to claim 6, further comprising:

a plurality of sensors for measuring an operation status of a behavior pattern executed by said behavior executing means,

15   wherein

said word attaching means stores sensor data groups obtained from said sensor, said word, and a criterion used in a judgement by said judging means while executing the behavior pattern judged to be

20   appropriate by said judging means.

11. The device according to claim 10, wherein said judging means uses a characteristic of sensor data as a criterion.

25

12. The device according to claim 6, further comprising:

    inquiring means for inquiring of a user an appropriate behavior pattern when an evaluation

5   higher than a predetermined level cannot be obtained by said judging means after said behavior executing means executes a predetermined number of behavior patterns.

10   13. A computer-readable storage medium for storing programs for implementing a data processing method using data with a word for processing data obtained from a sensor, said data processing method comprising the steps of:

15   when a sensor input is input from said sensor, classifying said sensor input using a database including data groups in which a word is attached to each of said data groups, and outputting a classification result, said data groups being

20   obtained by classifying inputs from said sensor directly or after processing said inputs;

    temporarily storing input data from said sensor as data of a new group after classifying said input data when it is determined that said input data does

25   not belong to any of said data groups classified in

said database; and

attaching a word to said data of said new group temporarily stored to store said data of said new group in said database.

5

14. A computer-readable storage medium for storing programs for implementing a device operation method for processing data with a word used in a device for operating an apparatus by processing language

10 information, said device operation method comprising the steps of:

inputting a word for instructing an operation of said apparatus;

comparing the input word and a word attached to

15 a behavior pattern stored in a database;

controlling said apparatus based on the behavior pattern to which the word is attached if the input word matches the word attached to the behavior pattern; and

20 controlling said apparatus according to a behavior pattern selected from a plurality of behavior patterns available for said apparatus according to a predetermined rule or at random if the input word does not match the word attached to the

25 behavior pattern, and when an appropriate behavior

pattern is executed, attaching said input word to the appropriate behavior pattern and storing the appropriate behavior pattern in said database with said input word.